IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of

Carsten PABST et al. Before the Board of Appeals

Serial No. 10/579,569 Art Unit: 3746

Filed: May 17, 2006 Examiner: Todd D. Jacobs

For: MULTIPISTON PUMP

APPELLANT'S BRIEF (37 CFR 41.37)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: December 22, 2009

Sir:

This Brief is filed in support of the Notice of Appeal filed on October 22, 2009, appealing the Examiner's decision of making final a rejection of claims 11, 13, 14, 16-18, 20, 22, 26, and 28-30.

The $540 fee for this Appeal Brief and any other required fee should be charged to Deposit Account No. 07-2100 by the attached deposit account form.

I - REAL PARTY IN INTEREST

The real party in interest in this appeal is:

Robert Bosch GmbH

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II - RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal, there are no such appeals or interferences. None

III - STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION - Twelve (12).

Claims in the application are: 11, 13, 14, 16-18, 20, 22, 26, and 28-30.

B. STATUS OF ALL THE CLAIMS

1. Claims canceled: 1-10, 12, 15, 19, 21, 23-25, and 27.
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 11, 13, 14, 16-18, 20, 22, 26, and 28-30.
4. Claims allowed: None.
5. Claims rejected: 11, 13, 14, 16-18, 20, 22, 26, and 28-30.

C. CLAIMS ON APPEAL

The claims on appeal are: 11, 13, 14, 16-18, 20, 22, 26, and 28-30.

IV - STATUS OF AMENDMENTS

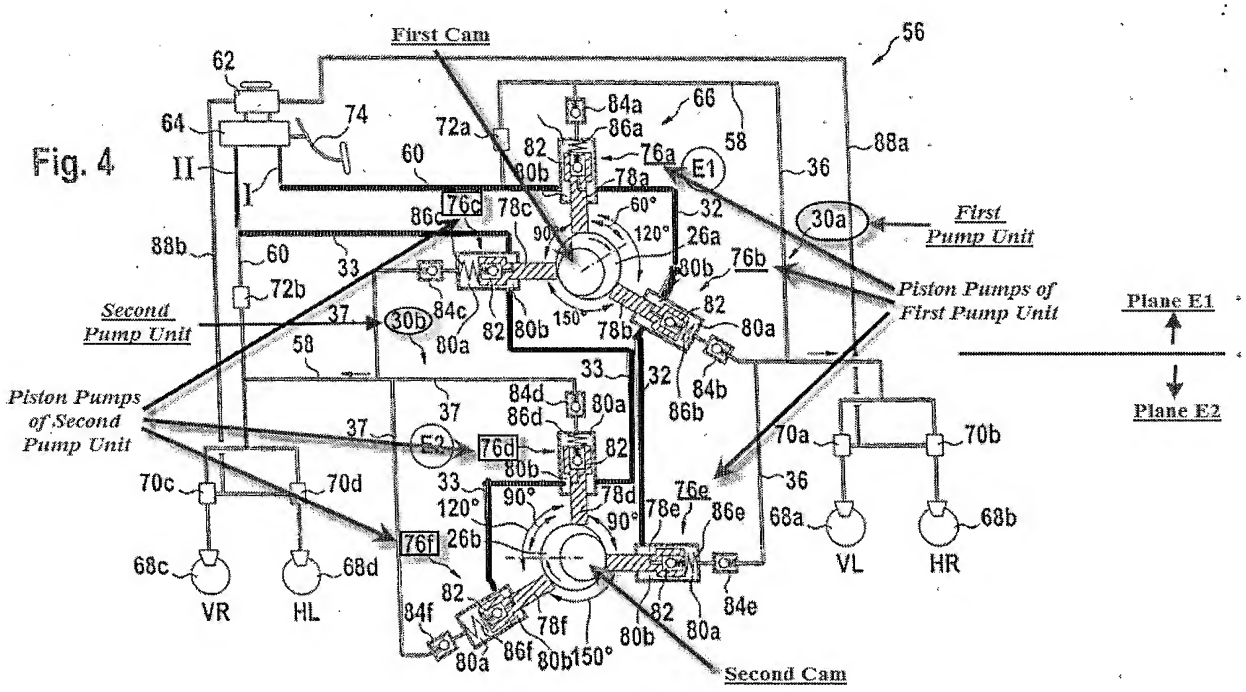
A reply to the Final Rejection was filed on September 17, 2009. In the Advisory Action mailed on October 6, 2009, the examiner indicated that the reply would be entered for purposes of appeal. Since the reply included an amendment to the claims, the claims in the Claims appendix are the same as the claims filed on September 17, 2009.

V - SUMMARY OF CLAIMED SUBJECT MATTER

In the following summary, all references to pages and lines can be found in the original English-language specification filed on May 17, 2006. However, it should be noted that the original English-language specification contained a number of minor errors that were corrected by the preliminary amendment also filed on May 17, 2006. The references to pages and lines in the following summary are intended as examples of where the claim language may be found in the specification and are not intended to be exclusive. Note that reference numeral 28 in the fourth line of page 8 is incorrect. It should, instead, be 76.

Appellants' invention is directed to a multipiston pump for an automobile braking system comprising a number of individual piston pumps *(76a-f) (p. 8, para. [0023])* arranged in two planes *(E1, E2) (Figs. 1 & 4)*. (Ref. no. 28 in para. [0023] should be 76.)

Fig. 4



Note that planes E1 and E2 are shown as being coplanar in Fig. 4 for illustrative purposes. The pumps are driven by a motor *(22) (para. [0021] pp. 6 & 7, and Fig. 2)* which includes two cams *(26a, 26b) (Fig. 2)*. The cams are spaced apart the same distance as planes E1 and E 2 such that cam 26a actuates the pumps in plane E1, and cam 26b actuates the pumps in plane E2 *(para. [0023] on p. 8; para. [0047] on p. 19 & Fig. 4)*.

Two of the piston pumps *(76a, 76b)* from plane E1 and one of the piston pumps *(76e)* from plane E2 are hydraulically combined, in parallel, to form a first pump unit *(30a) (p. 20, para. [0048] & Fig. 4)*. Similarly, two of the piston pumps *(76d, 76f)* from plane E2 and one of the piston pumps *(76c)* from plane E1 are hydraulically combined, in parallel, to form a second pump unit *(30b)*. Thus, one of the piston pumps in each pump unit is actuated by a different cam than the other two piston pumps in that pump unit. In addition, low pressure conduits *(32, 33) (para. [0048 on p. 20 & Fig. 4)* connect the low pressure sides of the piston pumps within each pump unit while high pressure conduits *(36, 37)* connect the high pressure sides of the piston pumps within each pump unit, thus connecting the piston pumps in parallel within each pump unit. Two of the advantages of this arrangement, as explained in paragraphs [0008] and [0009] of the specification, are that the geometric location of the individual piston pumps can be selected essentially independently of their hydraulic function and simpler production and assembly processes are attained.

Independent claim 11 is directed to a multipiston pump, comprising a pump housing *(10) (p. 5, first three lines of para. [0019] and Fig. 1)*, a motor *(22) (para. [0021] pp. 6 & 7, and Fig. 2) (also, last 3 lines on p. 6 and broken line K in Fig. 1)*, and an eccentric unit *(p. 7, 3rd and 4th lines of para.[0022] and Figs. 2 & 3)* driven by the motor, having an arrangement comprising a plurality of piston pumps *(76a-f) (p. 8, last 3 lines of para. [0023]; para. [0047] on p. 19; and Fig. 4)*, which are combined hydraulically *(p. 9, first 2 lines of para.*

[0026]; para. [0048] on p. 20; and Fig. 4) by means of connecting conduits *(32, 33, 36, 37) (p. 20, 8th-10th lines of para. [0048])* in the pump housing into first and second pump units *(30a, 30b) (p. 9, 1st 6 lines of para. [0026] and Figs. 1 & 4))* to supply two hydraulically separate hydraulic circuits *(I, II) (p. 15, 1st 3 lines of para.[0039], and Fig. 4)* with pressure fluid, the low-pressure sides of the piston pumps in the first pump unit *(30a) (Fig. 4)* being connected hydraulically to one another by a first low-pressure conduit *(32) (p. 20, para. [0048] starting in the 8th line and Fig. 4)* and the high-pressure sides of the piston pumps in the first pump unit *(30a) (Fig. 4)* being connected hydraulically to one another by a first high-pressure conduit *(36) (para. [0048} and Fig. 4)*, the low-pressure sides of the piston pumps in the second pump unit *(30b) (Fig. 4)* being connected hydraulically to one another by a second low-pressure conduit *(33) (para. [0048 and Fig. 4)* and the high-pressure sides of the piston pumps in the second pump unit *(30b) (Fig. 4)* being connected hydraulically to one another by a second high-pressure conduit *(37) (para. [0048] and Fig. 4)*, and the eccentric unit and the arrangement of piston pumps being adapted structurally to one another in the pump housing such that the piston pumps of one pump unit are always actuated in alternation with the piston pumps of the second pump unit with a phase offset between the actuation of the piston pumps of one pump unit on the one hand and the actuation of the two pump units on the other hand, so that the intake phases of at least two piston pumps overlap, without the piston pumps being in phase opposition to one another *(last 3 lines of para. 2 on p. 1)*, the improvement wherein the eccentric unit comprises at least two axially spaced apart cams *(26a, 26b) (1st 4 lines of para. [0022] on p. 7)*, wherein the piston pumps are located in a number of sectional planes of the pump housing *(E1, E2)(para. [0023] on pp. 7 & 8 and Fig. 1)* that correspond to the number of cams with the axial spacing of the cams being essentially equivalent to the axial spacing of these sectional planes *(ll. 2-4 on p. 8)*; wherein the

connecting conduits of the pump units are located in a region of the pump housing defined by the sectional planes, and wherein at least one of the piston pumps, combined hydraulically into a pump unit, is actuated by a different cam from the respective other piston pumps of the corresponding pump unit *(para. [0043] on pp. 16 & 17) and para. [0047] on p. 19*.

VI - GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(1) Whether claims 11, 13, 14, 16-18, 20, 22, 26, and 28-30 are unpatentable under 35 USC 103(a) as being obvious over Willmann et al. (USP 6,446,435) in view of Nakazawa (USP 6,065,816).

(2) Whether claims 11, 13, 14, 16-18, 20, 22, 26, and 28-30 are indefinite under 35 USC 112, second paragraph.

The Advisory Action, mailed October 6, 2009, does not clearly state whether the rejections under 35 USC 112, second paragraph, presented in the Final Rejection, have been overcome. Box number 5, which is available for this purpose, was not checked, and the "Note for 7" on the Continuation Sheet is not explicit. It merely states: "Applicant amended to overcome U.S.C. 112 rejections and are entered because the previous rejection is not affected or changed."

Accordingly, appellants are treating the rejections under 35 USC 112, second paragraph, presented in the Final Rejection, as continuing to be in effect.

VII - ARGUMENTS

(1) The rejection of claims 11, 13, 14, 16-18, 20, 22, 26, and 28-30 under 35 U.S.C. 103(a) as unpatentable over USP 6,446,435 to Willmann et al. (Willmann) in view of USP 6,065,816 to Nakazawa.

Appellants respectfully submit that this rejection is improper because **(A)** it would not have been obvious to modify Willmann in view of Nakazawa and **(B)** modifying Willmann in view of Nakazawa does not result in the claimed invention. See p. 16 of this Brief. Our reasoning is set forth below.

(A) Reasons Why The Combination Would Not Have Been Obvious

Claim 11 requires, *inter alia*, a plurality of piston pumps (lines 2 and 3) which are hydraulically combined into first and second pump units (lines 3 and 4), and an eccentric unit having at least two axially spaced apart cams (lines 17 and 18). Claim 11 further requires that the plurality of piston pumps be located in a number of sectional planes corresponding to the number of cams, with the axial spacing of the cams being essentially equivalent to the axial spacing of these sectional planes (lines 18-21). Claim 11 additionally requires that at least one of the piston pumps of one of the pump units be actuated by a different cam from the respective other piston pumps of the corresponding pump unit (lines 22-24).

To reject claim 11, the examiner relies upon Willmann as the base reference. Willmann's objective is to reduce pulsations and noise in a braking system by providing a plurality of piston pumps and pump units that are arranged such that no two of the pumps or pump units are 180° out of phase. Instead, the pistons are driven in a phase-shifted, but not anti-phase, manner such that the intake volume flows of the pistons partially overlap. This has the advantage that the entire intake volume flow of the multi-piston pump, i.e. the sum of

the intake volume flows of all of the pistons, is more uniform. See col. 1, lines 19-37; lines 51-63; and col. 2, lines 50-65.

Figure 4 of Willmann illustrates two pump units, each of which comprises three piston pumps that are hydraulically connected together in parallel and are actuated by a single cam element 70. See column 6, line 62-column 7, line 3 of Willmann. Pumps that are connected in parallel act independently of one another to pump brake fluid to their respective brake cylinders. One of the pump units comprises the piston pumps located at 30°, 150°, and 270°. The other pump unit comprises the piston pumps located at 0°, 120°, and 240°. The individual piston pumps are arranged in a star pattern and have a rotary angle spacing of 120° from each other resulting in a phase shifting among the six pistons of 30° and 90°, thus producing a phase-offset between the pump units by a rotary angle of 30°. See col. 7, lines 11-21. Thus, none of the piston pumps is in phase opposition to any of the other piston pumps and the pump units are not in phase opposition to one another.

Except for the two pump units, Willmann fails to disclose the features of claim 11 identified above.

To attempt to solve the deficiencies in the Willmann et al. disclosure, the examiner relies on Nakazawa and describes Nakazawa as disclosing a similar, dual pump unit. However, it is submitted that the brake control apparatus disclosed by Nakazawa is not similar to the apparatus disclosed by Willmann et al.

Instead, Nakazawa's invention is directed to an improvement for a pump unit for use in a brake control device which includes main and auxiliary pumps operable by a single motor. A pump unit in Nakazawa's apparatus comprises a main pump 24 and an auxiliary pump 25, as illustrated in Figure 1. A dual system arrangement is illustrated in Figure 2 in which each system has its own pump unit. Auxiliary pump 25a and main pump 24a are part

of the system on the left while auxiliary pump 25b and main pump 24b are part of the system on the right. Main pumps 24a and 24b are actuated by cam 35 while auxiliary pumps 25a and 25b are actuated by cam 57. See Fig. 2.

At col. 8, ll. 42-59, Nakazawa teaches that:

> [t]he main pump 24 and the auxiliary pump 25 have operating phases offset from each other. In this embodiment, **the main pump 24 and the auxiliary pump 25 have operating phases different from each other by substantially 180 degrees.** Specifically, the first and second eccentric cams 35 and 57 of the camshaft 32 are so configured and arranged to actuate the corresponding plungers 36 and 58 in opposite directions to provide such substantially **180-degree different operating phases of the main pump 24 and the auxiliary pump 25.** With the different operating phases, when the main pump 24 is in the suction stage, the auxiliary pump 25 is in the discharge stage, and conversely, when the main pump 24 is in the discharge stage, the auxiliary pump 25 is in the suction stage. **Particularly, it is desirable to offset the operating phases of the main pump 24 and the auxiliary pump 25 from each other in such a manner that brake fluid is discharged from the auxiliary pump 25 into the pump chamber 41 of the main pump 24 when the plunger 36 of the main pump 24 is in the suction stage.** (Emphasis added)

The first two highlighted portions above make it clear that Nakazawa's pumps are in phase opposition to one another, and the third highlighted portion makes it clear that that Nakazawa's pumps are connected in series. In addition, see col. 2, lines 36-38 which recite, ". . . the pump unit including a main pump and an auxiliary pump connected in series therewith . . ."

The reason for this arrangement can be found in col. 9, lines 52-61, which state:

> Further, owing to the offset operating phases of the main and auxiliary pumps 24 and 25, **the auxiliary pump 25 can supply brake fluid** required for quickly increasing the fluid pressure within the wheel cylinder 14, **to the pump chamber 41 of the**

> **main pump 24**. This causes a load applied to the pump driving motor to be reduced, serving for reducing capacity of the pump driving motor and size of the pump unit and thus improving a cost saving and an installation-space saving. Thus, the pump unit PU exhibits an increased performance and an improved pumping efficiency." (Emphasis added)

Thus, unlike Willmann's brake control apparatus, which has piston pumps that are connected in **parallel** and **are not** in phase opposition to one another, Nakazawa's apparatus has primary and auxiliary piston pumps that are connected in **series** and **are** in phase opposition to one another. Unlike pumps that are connected in parallel, pumps that are connected in series do not operate independently to pump brake fluid to the brake cylinders. Instead, Nakazawa's two pumps work together such that auxiliary pump 25 pumps fluid to main pump 24 to pump fluid to the brake cylinders.

Because of the noted differences in construction and operation between Willmann's apparatus and Nakazawa's apparatus, it is respectfully submitted that one of ordinary skill in the art would not have found any reason to modify Willmann in view of Nakazawa to arrive at the claimed invention. There is no reason why an artisan would look to a multi-piston pump with the pumps connected in series (Nakazawa) to modify a multi-piston pump where the pumps are connected in parallel (Willmann), and there is no reason why an artisan would look to a multi-piston pump, where the pumps work together to pump fluid to the brake cylinders (Nakazawa), to modify a multi-piston pump where each pump works independently to pump fluid to the brake cylinders (Willmann). There is simply nothing in Nakazawa that would suggest any modification to Willmann's braking apparatus.

Appellants note that the examiner has proffered a reason why it would have allegedly been obvious to combine Willmann and Nakazawa.

At the bottom of page 4 of the Final Rejection the examiner writes:

> It would have been obvious to one of ordinary skill in the art at the time of invention to form the individual brake circuits (I, II) of Willmann et al. in two separate planes of the pump housing, with two separate cams, as taught by Nakazawa, in order to lessen the amount of wear on the cam. (Emphasis added)

This statement of obviousness is a conclusion based upon the examiner's opinion and not a conclusion based upon fact. Section II of MPEP 2141 states:

> As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries . . ., and
>
> Office personnel fulfill the critical role of fact finder when resolving the *Graham* inquiries. It must be remembered that while the ultimate determination of obviousness is a legal conclusion, the underlying *Graham* inquiries are *factual*. When making an obviousness rejection, Office personnel must therefore ensure that the written record includes *findings of fact* concerning the state of the art and the teachings of the references applied. In certain circumstances, it may also be important to include explicit findings as to how a person of ordinary skill would have understood prior art teachings, or what a person of ordinary skill would have known or could have done. Factual findings made by Office personnel are the necessary underpinnings to establish obviousness. (Emphasis added.)

The examiner has failed to provide any finding of fact to support his conclusion of obviousness. He has pointed to no fact from Willmann, Nakazawa, or any other source to indicate that wear on the cams in brake systems was a concern for one skilled in the art at the time appellants' invention was made. He has provided no finding of fact that establishes that cams in brake systems wear out before other elements or that worn cams cause any kind of problem in brake systems.

Furthermore, even if wear on Willmann's cam were a problem, the examiner has provided no finding of fact to establish that one of ordinary skill in the art would have found it obvious to solve it by adding a second cam and increasing the complexity of Willmann's braking apparatus when the problem could be solved more simply by, for example, making the cam from a more wear resistant material.

Thus, it is submitted that the combination of Willmann and Nakazawa would not have been obvious for the reason proposed by the examiner.

(B) Reason Why The Combination Does Not Result In The Claimed Invention

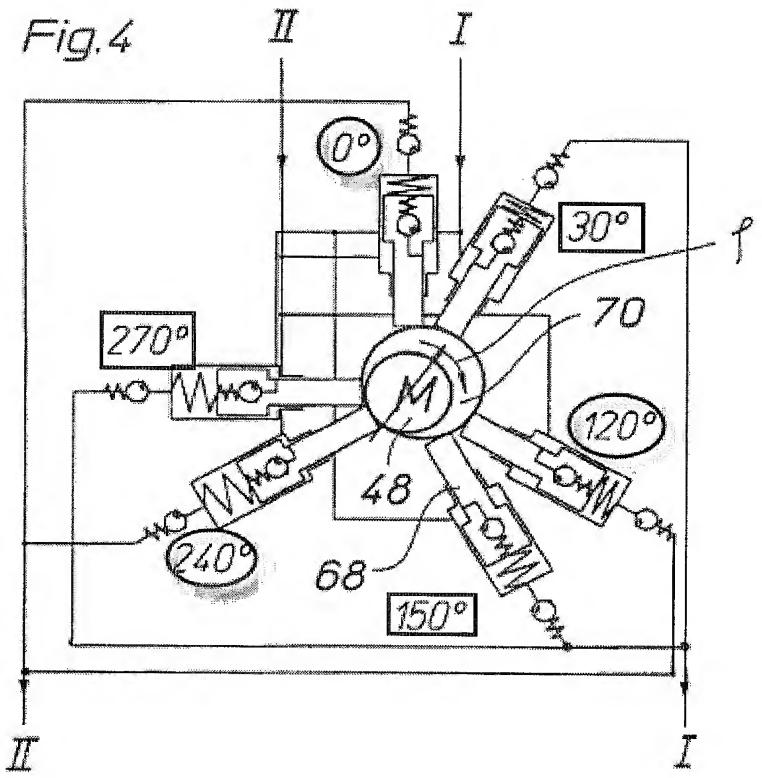
At the bottom of page 4 of the Final Rejection the examiner states:

> It would have been obvious to one of ordinary skill in the art at the time of invention to form the individual brake circuits (I, II) of Willmann et al. in two separate planes of the pump housing, with two separate cams, as taught by Nakazawa, in order to lessen the amount of wear on the cam. (Emphasis added)

If one were to form Willmann's individual brake circuits (I, II) in two separate planes, as suggested by the examiner, one would locate the three piston pumps (Fig. 4) associated with circuit I in one plane and the three piston pumps associated with circuit II in the other plane. At the top of page 4 of the Final Rejection, the examiner has correctly identified which pumps are associated with which circuit. In lines 2-4, the examiner states:

> . . . the pumps in unit I are the pumps that are offset by 30°, 150°, and 270°, which actuate alternatively with the pumps from unit II, which are offset by 0°, 120°, and 240° . . .

The examiner's statement comports with what is shown in Figure 4 of Willmann, reproduced below, and described in columns 6 and 7.



Column 6, line 62-column 7, line 8, state:

> A set of three stepped pistons 68 offset from one another by 120° are hydraulically connected to one another in parallel and are associated with one brake 65 circuit I; they constitute the hydraulic pump 42 of this brake circuit. The other three stepped pistons 68, which are likewise offset from one another by 120° and are offset from the first three stepped pistons by 30°, are likewise hydraulically connected to one another in parallel, and constitute the hydraulic pump 42 of the other brake circuit II. The sixpiston pump of FIG. 4 consequently has two hydraulic pumps 42, wherein the three stepped pistons 68 of one hydraulic pump are offset from one another by 120° and are also offset from the stepped pistons 68 of the other hydraulic pump by 30°. (Emphasis added)

However, this arrangement fails to satisfy the limitation in lines 22-24 of claim 11 which require that one of the piston pumps from one pump unit be actuated by a different cam from the respective other piston pumps of the corresponding pump unit. In the

combination proposed by the examiner, all of the piston pumps in circuit I would be actuated by one cam and all of the piston pumps in circuit II would be actuated by the other cam.

In the first full paragraph on page 5 of the Final Rejection, the examiner attempts to account for this limitation with the following statement:

> Note that Willmann et al. as modified by Nakazawa teach the multi piston pump (see the rejection above), wherein at least one of the piston pumps, combined hydraulically into a pump unit, is actuated by a different cam from the respective other piston pumps of the corresponding pump unit (the piston pump that is offset by 0° is actuated by a separate cam than the corresponding pump, which is offset by 30°, of the corresponding pump unit). (Emphasis added)

This statement is clearly in error because the piston pump that is offset by 0° is not in the same pump unit as the piston pump that is offset by 30°. They are in different pump units. Thus, the examiner's proposed combination does not meet all of the limitations of claim 11. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Clearly, the examiner has not established a prima facie case of obviousness.

Additional Argument In Support Of Non-Obviousness

Assuming, for the sake of argument, that it would have been obvious to arrange Willmann's circuits I and II in two separate planes, as proposed by the examiner, Nakazawa fails to provide any guidance as to how or why one would arrange one of Willmann's piston pumps such that it is actuated by a different cam from the respective other piston pumps of the corresponding unit. In Nakazawa's two pump units shown in Figure 2, auxiliary piston pumps 25a and 25b are actuated by a different cam than their respective main piston pumps

24a and 24b. However, the relationship between Nakazawa's piston pumps is different from the relationship between Willmann's piston pumps. In Nakazawa, each unit has two pumps—an auxiliary pump and a main pump--connected in series such that the auxiliary pump assists in supplying brake fluid to the main pump, whereas, in Willmann, each unit has three piston pumps connected in parallel such that they operate independently. In Nakazawa, the auxiliary pump and the main pump in each unit are 180° out of phase, while in Willmann, the piston pumps in each unit are 120° out of phase. Therefore, Nakazawa's two-pump units would not have provided one of ordinary skill in the art with any logical way to decide whether or which of Willmann's independently operating piston pumps of each three-pump unit should be located so as to be actuated by a different cam. Thus, it is respectfully submitted that the proposed combination of references would not have been obvious.

(2) The rejection of claims 11, 13, 14, 16-18, 20, 22, 26, and 28-30 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the Final Rejection, the examiner held that claim 11, as presented prior to the Final Rejection, was indefinite because it was unclear whether the two references to "a low pressure conduit" referred to the same conduit, and whether the two references to "a high pressure conduit" referred to the same conduit.

While appellants do not understand why this language is indefinite, in order to expedite prosecution, claim 11 has been amended to overcome the rejection by more specifically identifying the conduits as first and second low-pressure conduits (conduits 32 and 33) and

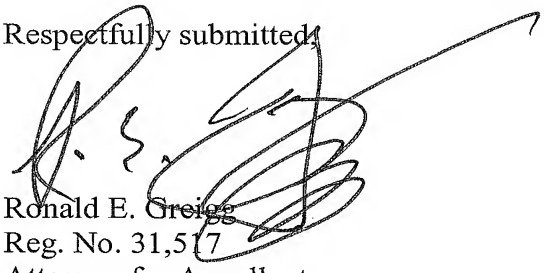
first and second high-pressure conduits (conduits 36 and 37). See lines 5-11 of claim 11 in the Claims Appendix. Appellants submit that these changes overcome this rejection.

In the Final Rejection, the examiner held that the language "in the range of" as used in claims 14, 16 and 17, as presented prior to the Final Rejection, was indefinite. This particular language has been canceled from these claims. Appellants submit that these changes overcome this rejection.

CONCLUSION

For the reasons stated above, the appellants request that the Examiner's rejections of the claims be reversed.

Respectfully submitted,



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VIII - CLAIMS APPENDIX

Claims 1-10. **(Canceled)**

11. **(Rejected)** In a multipiston pump, having a pump housing, a motor, and an eccentric unit driven by the motor, having an arrangement comprising a plurality of piston pumps, which are combined hydraulically by means of connecting conduits in the pump housing into first and second pump units to supply two hydraulically separate hydraulic circuits with pressure fluid, the low-pressure sides of the piston pumps in the first pump unit being connected hydraulically to one another by a first low-pressure conduit and the high-pressure sides of the piston pumps in the first pump unit being connected hydraulically to one another by a first high-pressure conduit, the low-pressure sides of the piston pumps in the second pump unit being connected hydraulically to one another by a second low-pressure conduit and the high-pressure sides of the piston pumps in the second pump unit being connected hydraulically to one another by a second high-pressure conduit, and the eccentric unit and the arrangement of piston pumps being adapted structurally to one another in the pump housing such that the piston pumps of one pump unit are always actuated in alternation with the piston pumps of the second pump unit with a phase offset between the actuation of the piston pumps of one pump unit on the one hand and the actuation of the two pump units on the other hand, so that the intake phases of at least two piston pumps overlap, without the piston pumps being in phase opposition to one another, the improvement wherein the eccentric unit comprises at least two axially spaced apart cams, wherein the piston pumps are located in a number of sectional planes of the pump housing that correspond to the number of cams with the axial spacing of the cams being essentially equivalent to the axial spacing of these sectional planes; wherein the connecting conduits of the pump units are located in a region of the pump

housing defined by the sectional planes, and wherein at least one of the piston pumps, combined hydraulically into a pump unit, is actuated by a different cam from the respective other piston pumps of the corresponding pump unit.

Claim 12. **(Canceled)**

13. **(Rejected)** The multipiston pump in accordance with claim 11, further comprising a rotary angle spacing in the range of between 110° and130° between two successively actuated piston pumps of a pump unit.

14. **(Rejected)** The multipiston pump in accordance with claim 11, wherein the rotary angle spacing between successive actuations of two piston pumps is approximately 30° or approximately 90°.

Claim 15. **(Canceled)**

16. **(Rejected)** The multipiston pump in accordance with claim 13, wherein the rotary angle spacing between successive actuations of two piston pumps is approximately 30° or approximately 90°.

17. **(Rejected)** The multipiston pump in accordance with claim 14, wherein the cams are rotated by the rotary angle relative to one another with the rotary angle spacing of the cams being approximately 150°.

18. **(Rejected)** The multipiston pump in accordance with claim 11, wherein each cam of the eccentric unit drives at least two piston pumps.

Claim 19. **(Canceled)**

20. **(Rejected)** The multipiston pump in accordance with claim 11, wherein the piston pumps that are combined into a pump unit are located spatially immediately adjacent one another in the pump housing.

Claim 21. **(Canceled)**

22. **(Rejected)** The multipiston pump in accordance with claim 13, wherein the piston pumps that are combined into a pump unit are located spatially immediately adjacent one another in the pump housing.

Claims 23-25. **(Canceled)**

26. **(Rejected)** The multipiston pump in accordance with claim 11, wherein one piston of at least one of the piston pumps is embodied as a stepped piston and defines two pressure chambers each, which are of variable volume in phase opposition to one another.

Claim 27. **(Canceled)**

28. **(Rejected)** The multipiston pump in accordance with claim 20, wherein one piston of at least one of the piston pumps is embodied as a stepped piston and defines two pressure chambers each, which are of variable volume in phase opposition to one another.

29. **(Rejected)** In an electrohydraulic vehicle brake system, having an external-force-actuated service brake and a muscle-force-actuated emergency brake, each with two brake circuits the improvement wherein the service brake is equipped with a multipiston pump as defined claim 11.

30. **(Rejected)** The multipiston pump in accordance with claim 13, further comprising a rotary angle spacing of 120° between two successively actuated piston pumps of a pump unit.

IX - EVIDENCE APPENDIX

None

X - RELATED PROCEEDINGS APPENDIX

None